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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/664,196	09/17/2003	Thomas Batzinger	131253 (1306-30)	3895
7590 09/27/2004			EXAMINER	
GE Global Research Docket Room K-1/4A59 One Research Circle Niskayuna, NY 12309			LAU, TUNG S	
			ART UNIT	PAPER NUMBER
			2863	

DATE MAILED: 09/27/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/664,196

Applicant(s)

BATZINGER ET AL.

Examiner

Tung S Lau

Art Unit

2863

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 September 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>9-17-2003</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Information Disclosure Statement

1. The IDS filed on 9-17-2003 has been accepted and signed by the examiner.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-7, 9-11, 16-20 are rejected under 35 U.S.C. 102(b) as being anticipated by Neuermann et al. (U.S. Patent 4,683,419).

Regarding claim 1:

Neuermann discloses a system for monitoring defects in a structure, the system comprising: a power supply for supplying an electric current to a monitoring area of the structure and a reference; a measurement circuit for measuring a potential drop across at least two contact points of the monitoring area and at least two contact points of the reference (fig. 1, unit 13, 14, 6, 9); and a processor adapted to determine a ratio of the monitoring area potential drop to the reference potential drop indicative of a percentage change in a thickness of the structure (Col. 3-4, Lines 54-9, Col. 9, Lines 53-59).

Regarding claim 11:

Neuermann discloses a method for monitoring defects in a structure, the method comprising the steps of: supplying an electric current to a monitoring area of the

structure and a reference measuring a first potential drop across at least two contact points of the monitoring area and a first potential drop across at least two contact points of the reference (fig. 1, unit 13, 14, 6, 9); and determining a ratio of the monitoring area potential drop to the reference potential drop indicative of a percentage change in a thickness of the structure (Col. 3-4, Lines 54-9, Col. 9, Lines 53-59).

Regarding claim 2, Neuermann discloses the reference is of the same material as the structure (fig. 1, unit 4, Col. 9, Lines 53-59); Regarding claim 3, Neuermann discloses the structure are electrically coupled (fig. 1, unit 4, Col. 9, Lines 53-59); Regarding claim 4, Neuermann discloses the reference includes a first current injection port for coupling the power supply to the reference and the structure includes a second current injection port for coupling the power supply to the structure, wherein current will flow from the first current injection port to the second current injection port (Col. 3-4, Lines 54-9, fig. 4, unit 19, 20); Regarding claim 5, Neuermann discloses the reference includes a plurality of current injection ports for coupling the power supply to the reference and the structure includes a plurality of current injection ports for coupling the power supply to the structure, wherein a plurality of currents may be applied in different directions across the reference and structure (fig. 1, unit 21, 19, 1); Regarding claim 6, Neuermann discloses the contact point in a matrix for measuring potential drop (fig. 1, unit 13, 14, Col. 3-4, Lines 54-9); Regarding claims 7, 16, Neuermann discloses plurality of contact pints simultaneously Col. 3-4, Lines 54-9););

Regarding claims 9, 17, Neuermann discloses display a location of the structure (Col. 4, Lines 22-28, fig. 1, unit 9); Regarding claim 10, Neuermann discloses communication module to transfer data to others (fig. 1, unit 9). Regarding claim 18, Neuermann discloses supplying current in plurality path sequentially and measure the potential drop (Col. 2-3, Lines 62-5, Col. 3-4, Lines 54-9); Regarding claim 19, Neuermann discloses magnitude and direction (abstract); Regarding claim 20, Neuermann discloses physical location (Col. 4, Lines 22-28, fig. 1, unit 9).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

a. Claims 8 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Neuermann et al. (U.S. Patent 4,683,419) in view of Hognestad (U.S. Patent 4,656,595).

Neuermann discloses a system and method including the subject matter discussed above except the use of a DC current and averaging the calculation. Hognestad discloses the use of a DC current (Col. 1, Lines 34-57, Col. 3, Lines 36-47) and averaging the calculation (Col. 6, Lines 19-22), in order to have a flexible monitoring system under any conditions (Col. 1-2, Lines 60-8).

Art Unit: 2863

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Neuemann to have the use of a DC current and averaging the calculation taught by Hognestad in order to have a flexible monitoring system under any conditions.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

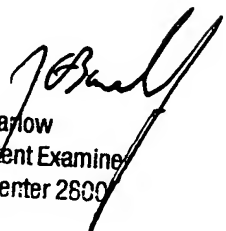
Claim 12-14 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. when no current apply to a surface, how to have a voltage drop in the surface (i.e. principle of Ohm's law).

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tung S Lau whose telephone number is 571-272-2274.

The examiner can normally be reached on M-F 9-5:30. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Barlow can be reached on 571-272-2269. The fax phone numbers for the organization where this application or proceeding is assigned is 703-872-9306

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

TL


John Barlow
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